1. (Currently Amended) A method for designing a circuit that satisfies user-specified functional requirements, the method comprising the steps of:

   receiving said user-specified functional requirements over a network from a client;

   automatically determining, based on said user-specified requirements, components and a topology for constructing said a particular circuit that is constructable on a circuit board;

   wherein the step of determining components includes determining components that have operational values such that, when said components are arranged according to said topology to form said particular circuit, the particular circuit satisfies said user-specified functional requirements; and

   delivering to said client over said network component information that identifies said components.

2. (Original) The method of Claim 1 wherein:

   the client is executing a browser; and

   the step of delivering said component information includes delivering to said browser one or more web pages that identify said components.

3. (Original) The method of Claim 2 wherein the step of delivering includes delivering one or more web pages that identify said components and that include at least one control which, when selected, initiates an operation for placing an order over said network for at least one of said components.

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4. (Original) The method of Claim 3 wherein the step of automatically determining components includes the steps of:

automatically determining, based on said user-specified requirements, a plurality of suggested components, each of which may be used to design a circuit that satisfies said user-specified functional requirements;

delivering to said browser over said network one or more suggested component web pages that identify said plurality of suggested components;

in response to selection of a suggested component of said plurality of suggested components identified in said one or more suggested component web pages, receiving from said browser over said network a message that identifies the selected suggested component; and

automatically determining, based on said user-specified requirements and said selected suggested component, components for constructing a circuit that includes said selected suggested component and that satisfies said user-specified functional requirements.

5. (Original) The method of Claim 4 wherein the step of delivering to said browser over said network one or more suggested component web pages includes delivering one or more suggested component web pages that specify, for each suggested component of said plurality of suggested components, a price value.

6. (Original) The method of Claim 4 wherein the step of delivering to said browser over said network one or more suggested component web pages includes delivering one or more suggested component web pages that specify, for each suggested component of said plurality of suggested components, a component identifier and one or more operating values.

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7. (Currently Amended) The method of Claim 3 further comprising the steps of:

determining a set of alternative components for a particular component of said

components, wherein each alternative component in said set of alternative

components may be used in said particular circuit in place of a particular

component;

delivering to said browser over said network one or more web pages that identify

said components and that include a control that is associated said

particular component;

in response to selection of said control, displaying on said browser said set of

alternative components; and

in response to selection of one of said alternative components, updating said

design to include said selected alternative component in place of said

particular component.

8. (Original) The method of Claim 3 wherein said operation for placing an order is

an operation for placing an order for a kit that includes a plurality of said

components.

9. (Original) The method of Claim 8 wherein said operation for placing an order is

an operation for placing an order for a kit that includes all of said components.

10. (Currently Amended) The method of Claim 3 wherein said operation for placing

an order is an operation for placing an order with another party for the other party

to construct a-said particular circuit.

11. (Original) The method of Claim 3 further comprising the step of automatically

determining, based on said user-specified requirements, one or more prefabricated

circuits for that satisfy said user-specified functional requirements.

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12. (Original) The method of Claim 11 further comprising the step delivering to said browser over said network one or more web pages that identify said one or more prefabricated circuits and that include at least one control which, when selected, initiates an operation for placing an order over said network for at least one of said one or more prefabricated circuits.

13. (Original) The method of Claim 3 wherein:

the user-specified functional requirements include one or more input values; and

the step of automatically determining components includes

applying one or more input values from said user-specified functional requirements to a formula to determine one or more required parameter values, and

determining said components based on said one or more required parameter values.

14. (Currently Amended) The method of Claim 2 further comprising the steps of:

providing data that identifies said components and said topology to a schematic design generation module; and

delivering to said browser, based on output from said schematic design generation module, one or more web pages that display a schematic design of said particular circuit that includes said components arranged according to said design.

15. (Original) The method of Claim 14 wherein:

the user-specified functional requirements include one or more input values; and

the step of automatically determining components includes

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applying one or more input values from said user-specified functional

requirements to a formula to determine one or more required

parameter values, and

determining said components based on said one or more required

parameter values.

16. (Currently Amended) The method of Claim 14 wherein the browser is operated by

a particular user, the method further comprising the steps of:

storing, on server-side storage, design data that specifies the design of said

particular circuit and data that associates the design data with said user;

and

delivering to said browser a web page that identifies a set of previously saved

designs associated with said user, said previously saved designs including

the design of said particular circuit; and

in response to user input at said browser, delivering to said browser a web page

that includes a schematic diagram generated based on the design data

stored on said server-side storage.

17. (Original) The method of Claim 16 further comprising the steps of:

in response to user input at said browser that indicates that said design is to be

shared with a second user, storing data that associates the design data with

said second user;

delivering to a second browser operated by said second user a web page that

identifies a set of previously saved designs associated with said second

user, said previously save designs including the design of said particular

circuit; and

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in response to user input at said second browser, delivering to said second

browser a web page that includes a schematic diagram generated based on

the design data stored on said server-side.

18.     (Currently Amended) The method of Claim 14 wherein:

the step of automatically determining components includes determining

components that have specific operational values;

the step of providing data that identifies said components includes providing data

that identifies components with said specific operational values; and

the step of delivering one or more web pages that display a schematic design of

said particular circuit includes delivering to said browser a web page that

displays an arrangement of said components with said specific operational

values.

19.     (Currently Amended) A computer-readable medium carrying instructions for

designing a circuit that satisfies user-specified functional requirements, the

instructions including instructions for performing the steps of:

receiving said user-specified functional requirements over a network from a

client;

automatically determining, based on said user-specified requirements,

components and a topology for constructing said a particular circuit that is

constructable on a circuit board;

wherein the step of determining components includes determining components

that have operational values such that, when said components are arranged

according to said topology to form said particular circuit, the particular

circuit satisfies said user-specified functional requirements; and

delivering to said client over said network component information that identifies

said components.

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20. (Original) The computer-readable medium of Claim 19 wherein:

the client is executing a browser; and

the step of delivering said component information includes delivering to said

browser one or more web pages that identify said components.

21. (Original) The computer-readable medium of Claim 20 wherein the step of

delivering includes delivering one or more web pages that identify said

components and that include at least one control which, when selected, initiates an

operation for placing an order over said network for at least one of said

components.

22. (Original) The computer-readable medium of Claim 21 wherein the

step of automatically determining components includes the steps of:

automatically determining, based on said user-specified requirements, a plurality

of suggested components, each of which may be used to design a circuit

that satisfies said user-specified functional requirements;

delivering to said browser over said network one or more suggested component

web pages that identify said plurality of suggested components;

in response to selection of a suggested component of said plurality of suggested

components identified in said one or more suggested component web

pages, receiving from said browser over said network a message that

identifies the selected suggested component; and

automatically determining, based on said user-specified requirements and said

selected suggested component, components for constructing a circuit that

includes said selected suggested component and that satisfies said user-

specified functional requirements.

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23.  (Original) The computer-readable medium of Claim 22 wherein the step of
delivering to said browser over said network one or more suggested component
web pages includes delivering one or more suggested component web pages that
specify, for each suggested component of said plurality of suggested components,
a price value.

24.  (Original) The computer-readable medium of Claim 22 wherein the step of
delivering to said browser over said network one or more suggested component
web pages includes delivering one or more suggested component web pages that
specify, for each suggested component of said plurality of suggested components,
a component identifier and one or more operating values.

25.  (Currently Amended) The computer-readable medium of Claim 21 further
comprising instructions for performing the steps of:
determining a set of alternative components for a particular component of said
        components, wherein each alternative component in said set of alternative
        components may be used in said particular circuit in place of a particular
        component;
delivering to said browser over said network one or more web pages that identify
        said components and that include a control that is associated said
        particular component;
in response to selection of said control, displaying on said browser said set of
        alternative components; and
in response to selection of one of said alternative components, updating said
        design to include said selected alternative component in place of said
        particular component.

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26. (Original) The computer-readable medium of Claim 21 wherein said operation for placing an order is an operation for placing an order for a kit that includes a plurality of said components.

27. (Original) The computer-readable medium of Claim 26 wherein said operation for placing an order is an operation for placing an order for a kit that includes all of said components.

28. (Currently Amended) The computer-readable medium of Claim 21 wherein said operation for placing an order is an operation for placing an order with another party for the other party to construct a-said particular circuit.

29. (Original) The computer-readable medium of Claim 21 further comprising instructions for performing the step of automatically determining, based on said user-specified requirements, one or more prefabricated circuits for that satisfy said user-specified functional requirements.

30. (Original) The computer-readable medium of Claim 29 further comprising instructions for performing the step delivering to said browser over said network one or more web pages that identify said one or more prefabricated circuits and that include at least one control which, when selected, initiates an operation for placing an order over said network for at least one of said one or more prefabricated circuits.

31. (Original) The computer-readable medium of Claim 21 wherein:
the user-specified functional requirements include one or more input values; and
the step of automatically determining components includes

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applying one or more input values from said user-specified functional

requirements to a formula to determine one or more required

parameter values, and

determining said components based on said one or more required

parameter values.

32.    (Currently Amended) The computer-readable medium of Claim 20 further

comprising the steps of:

providing data that identifies said components and said topology to a schematic

design generation module; and

delivering to said browser, based on output from said schematic design generation

module, one or more web pages that display a schematic design of said

particular circuit that includes said components arranged according to said

design.

33.    (Original) The computer-readable medium of Claim 32 wherein:

the user-specified functional requirements include one or more input values; and

the step of automatically determining components includes

applying one or more input values from said user-specified functional

requirements to a formula to determine one or more required

parameter values, and

determining said components based on said one or more required

parameter values.

34.    (Currently Amended) The computer-readable medium of Claim 32 wherein the

browser is operated by a particular user, the computer-readable medium further

comprising instructions for performing the steps of:

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storing, on server-side storage, design data that specifies the design of said

particular circuit and data that associates the design data with said user;

and

delivering to said browser a web page that identifies a set of previously saved

designs associated with said user, said previously saved designs including

the design of said particular circuit; and

in response to user input at said browser, delivering to said browser a web page

that includes a schematic diagram generated based on the design data

stored on said server-side storage.

35. (Currently Amended) The computer-readable medium of Claim 34 further

comprising instructions for performing the steps of:

in response to user input at said browser that indicates that said design is to be

shared with a second user, storing data that associates the design data with

said second user;

delivering to a second browser operated by said second user a web page that

identifies a set of previously saved designs associated with said second

user, said previously save designs including the design of said particular

circuit; and

in response to user input at said second browser, delivering to said second

browser a web page that includes a schematic diagram generated based on

the design data stored on said server-side.

1 36. (Currently Amended) The computer-readable medium of Claim 32 wherein:

2 the step of automatically determining components includes determining

3 components that have specific operational values;

4 the step of providing data that identifies said components includes providing data

5 that identifies components with said specific operational values; and

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6       the step of delivering one or more web pages that display a schematic design of

7       said <u>particular</u> circuit includes delivering to said browser a web page that

8       displays an arrangement of said components with said specific operational

9       values.

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